December 16, 2015

# John Marshall SWCD Annual Awards Luncheon



John Marshall Soil and Water Conservation District 2015 Annual Awards Luncheon

# Serving Fauquier County, Virginia









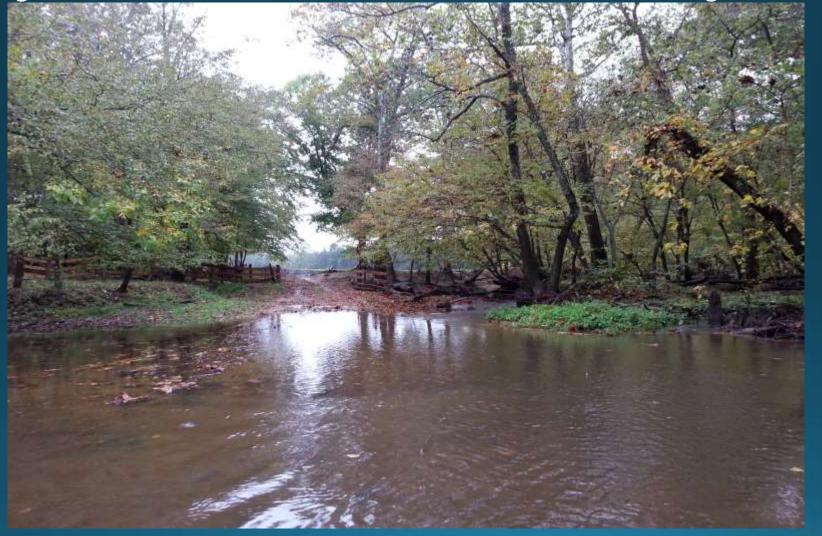






### Marsh Run Watershed "TMDL" Program

provides technical and financial assistance for residential and agricultural conservation practices designed to reduce bacterial-laden runoff and restore ecological health



Marsh Run crossing at Willingham Farm, one mile upstream of Rappahannock River

## Daron Culbertson

Co-owner and Operator of Willingham Farm







Remington, VA

Mr. Willingham was a charter member of VA Hereford Association and raised polled Herefords in southern Fauquier County for over 50 years.



Today, Daron continues the tradition with a purebred and Hereford cross cow/calf operation and bull sales. He grazes approximately 200 acres on two farms, both of which have adjoining tracts. The Remington Road farm borders Craig's Run and the Hardins Pine Rd. farm is bisected by the main stem of Marsh Run



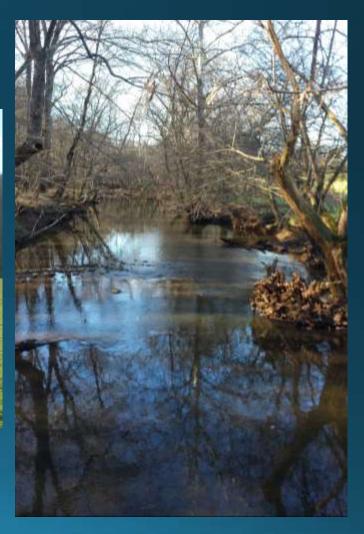


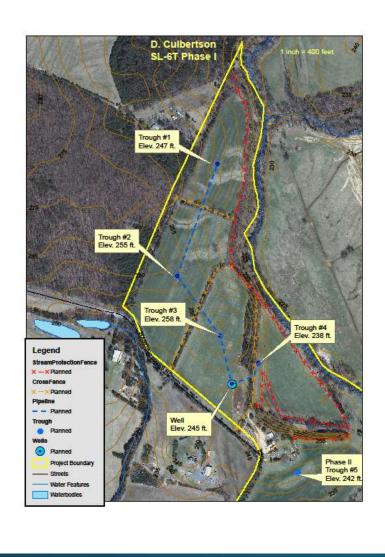


First stream exclusion project was on the Hardins Pines Rd. Farm. Two phases of installation protected 12,200 feet of stream bank. The full exclusion of 5 neighboring properties, Grove, Chapman, Ott, Weaver and Willingham family farms, have undoubtedly contributed to recent water quality improvements in the lower Marsh Run



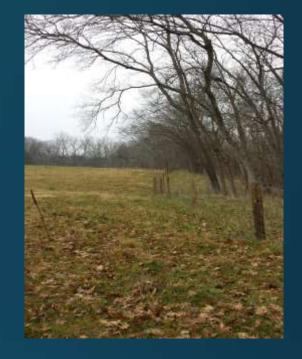














Daron enhanced his rotational grazing system through the installation of cross fence and a ford crossing. His practices created over 15 acres of riparian buffer which protects water quality and improves wildlife habitat.







In addition to stream footage, two fields had natural and man made drainages and wetland areas that were protected.



# Stewardship and Research



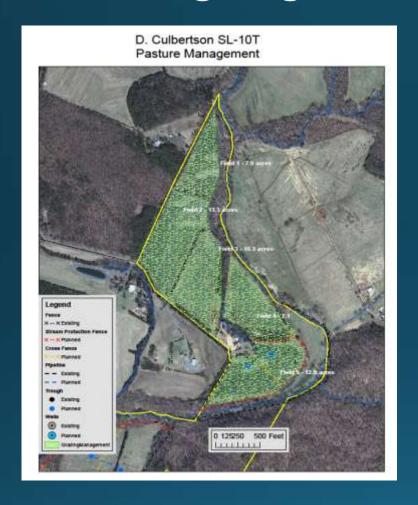
Liberty High School students and volunteers planted an acre of hardwood seedlings

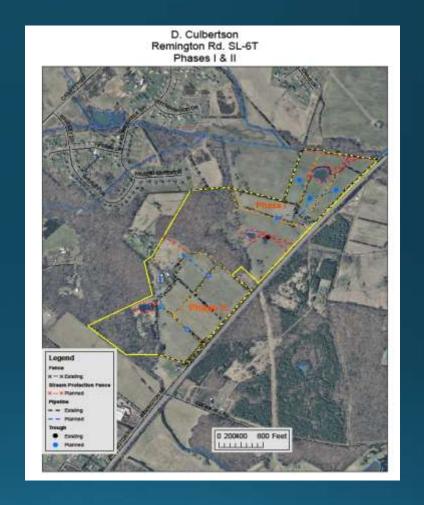


JMSWCD staff and volunteers monitor water quality and biodiversity



### Ongoing Conservation Practices





Daron is participating in the TMDL pasture management pilot program at the Marsh Run farm and will be excluding an additional 5,500 feet of stream bank on separate tract on the far side of the run. He recently completed phase I of the Remington Rd farm stream exclusion practices. By June 2016, an additional 6,300 feet of stream bank in the upper Marsh Run watershed will be protected.

For their outstanding conservation and land stewardship the John Marshall SWCD would like to recognize

Daron Culbertson

for the

2015 TMDL Conservation Farm Award



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Janice and Karen
Dorschner currently run a
cow/calf operation at their
farm in Midland VA.

The farm has pastureland, hay fields, and other livestock including sheep, chickens, and turkeys.





### Landowner goals:

- Improve pasture quality.
- Protect the pond and stream that runs through the center of the property.

The Dorschners installed livestock exclusion fence, an alternative water system, and heavy use protection.

The conservation practice protects 1,200 feet of stream bank and 2.5 acres of riparian buffer.



Existing fence that was protecting established riparian buffer was enrolled in the *Continuing Conservation Initiative* (CCI) program protecting an additional 1,490 feet of stream bank.





Two fields of 25 acres were converted from cropland to permanent sod.

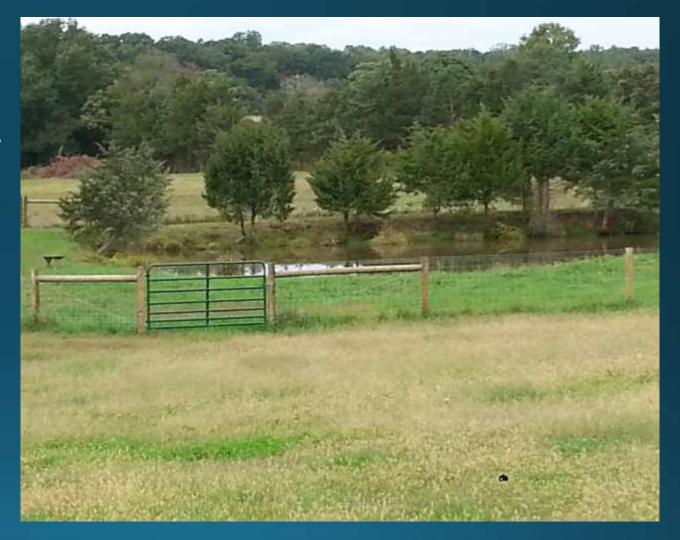
One field will be used as hay land, the other for pasture that will be added to the farm's grazing acreage.



Midtrees Farm worked with JMSWCD to create a three year grazing management plan to improve pasture quality and grazing efficiency.



Through their conservation efforts, Karen and Janice Dorschner have excluded livestock from all surface water on the property, improved grazing, and protected the natural resources of Midtrees Farm.



For their outstanding conservation and land stewardship the John Marshall SWCD would like to recognize

Midtrees Farm

for the

2015 Conservation Farm Award



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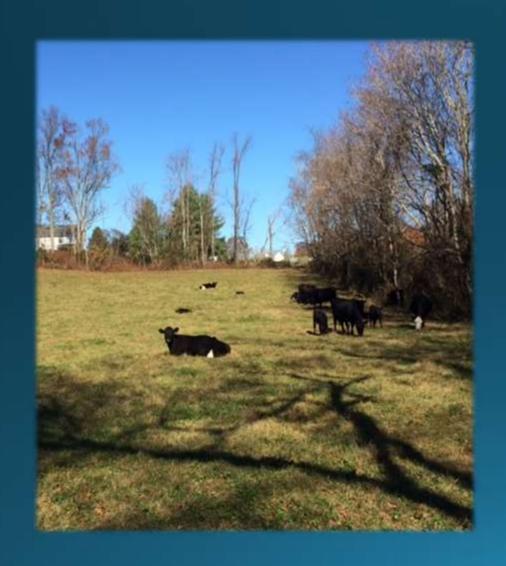


## Irvin and Nancy Woods

for the

2015 Clean Water Farm Award Thumb Run – Rappahannock River Basin

# The Woods own and operate a 60-acre beef cattle & horse farm near the village of Hume in Fauquier County





#### **Stream Exclusion Practices**



In 2014, they achieved full protection of surface waters through livestock exclusion practices:

- Three phases have protected 4,800 feet of stream bank
- Created 3.3 acres of riparian buffer which includes significant wetland protection
- Installed 3 hardened stream crossings to facilitate rotational grazing

#### **Pasture Management Practice**





Through the installation of the stream exclusion practices, the Woods were able to sub-divide four larger pastures into 9 paddocks to enhance rotational grazing. In 2015, they enrolled their farm's pastures, approximately 40 acres, in the SL-10 T Pasture Management practice which began with the development of a nutrient management plan.

#### **Educational Programs**





Before

After

A tributary of the Western branch of Thumb Run, which is an impaired stream, bisects the farm. It's low-lying confluence with a smaller stream created challenges in designing crossings and travel lanes for the cattle. During the 2015 year, the Woods hosted a program managers tour for DEQ and EPA staff, as well as joint engineering training with NRCS.

Grazing Land and Stream Protection in Thumb, Carter, Deep & Great Run Watersheds

(JMSWCD's first TMDL project)

- Implemented 80 projects
- Protecting approx. 312,860
   ft. of stream bank ~ 59 miles
- Creating approximately 400 acres of riparian buffer
- Paid greater than \$1.7 million in cost share dollars (including 319 and state funds – VACS, CBLEI, VNRCF, VCEI)





#### Riparian Buffer Restoration





In spring 2015, the one acre riparian buffer created by Phase I of the Wood's exclusion practice, was planted with native trees, shrubs and wetland plants that will protect water quality and enhance wildlife habitat. Plans are underway to plant additional buffer areas on the Woods farm in 2016.

### Research



The Woods are also cooperating with JMSWCD staff and volunteers in a bio-monitoring project to learn more about how riparian buffers change over time.







For their outstanding conservation and land stewardship the John Marshall SWCD would like to recognize

Irvin and Nancy Woods

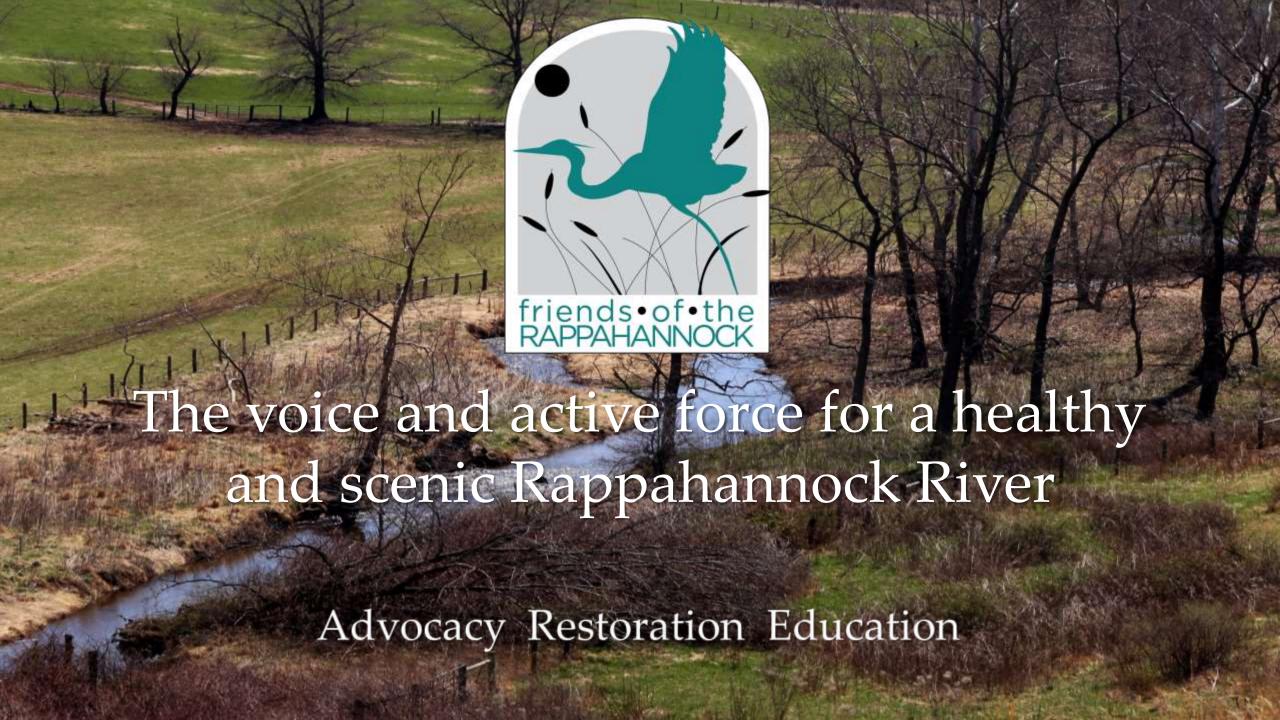
for the

2015 Clean Water Farm Award



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## About Friends of the Rappahannock

- Founded in 1985 by local river users
- Serves the Rappahannock River Watershed
- All or parts of 15 counties
- Offices in Fredericksburg and Tappahannock, Virginia
- 7 full time staff and 5 part time environmental educators
- Boat loads of River Friends

#### It all Started with a short call and a simple question

• Fall of 2012 Hannah vonOeyen, Watershed Coordinator - "are we interested in partnering on a riparian tree planting".

#### The Plan - -

- JMSWCD coordinate with the landowners, select good riparian sites, and provide technical assistance in the planting.
- FOR Classroom instruction about the benefits of water quality protection and riparian buffers
- FOR bus the student volunteers (mostly HS kids) to the site and get the work done.
- FOR cover material costs

#### The Recipe for Success:

- No contractual obligation for the Landowner
- Would allow us to take cuttings (live-stakes) in the future
- Students receive community service hours
- Get out of school and spend a wonderful day in the country
- The District, the Virginia Department of Forestry, and FOR would be fulfilling our mission of water quality protection.
- The Rappahannock River would get protection through much needed buffers.

## Spring of 2012 - Priestly Farm Planting



- Over 50 Kids from Stafford High Schools
- Volunteering to improve water quality

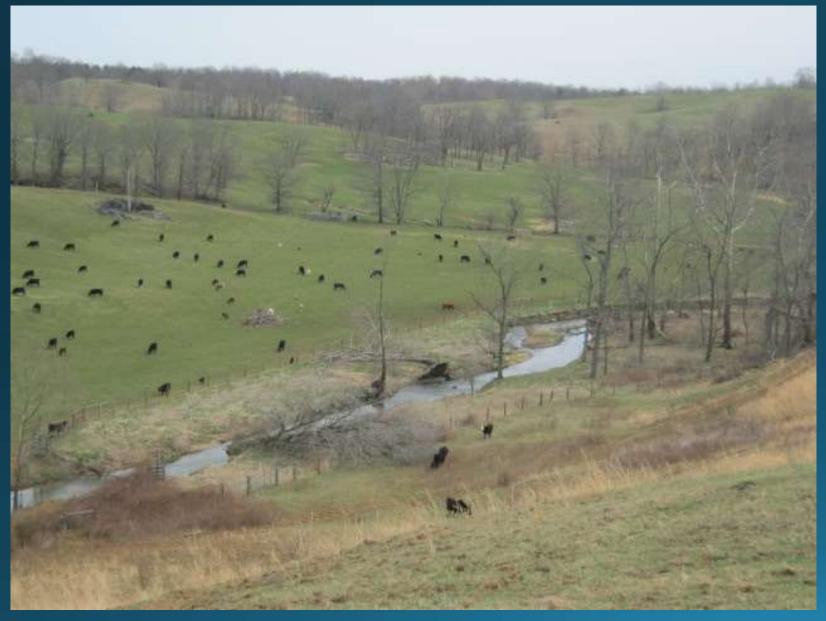


- Planted over 3 acres in one day
- 800 Hardwood trees
- 145 pine trees
- 1,350 live-stakes
- Tributary to Thumb
   Run a TMDL Stream

#### Priestly Farm Tree Planting – A great Success



## Spring 2012 - Marriott Ranch Planting



- Our second of the year
- Planting was planned for another previously fenced area
- Main stem of Fiery Run

#### A few of the Planting Crew



- Mostly College kids on spring break
- Planted over 2 acres
- 230 Hardwood trees
- 1,400 live-stakes



#### Spring 2013 - Chapman Farm Planting



- ~65 Fauquier and Stafford High School Students
- Planted nearly 5
   acres over 2 days
- 700 Hardwoods
- 800 live-stakes
- Harpers Run

## Spring 2014 - Marshfield Farm Planting



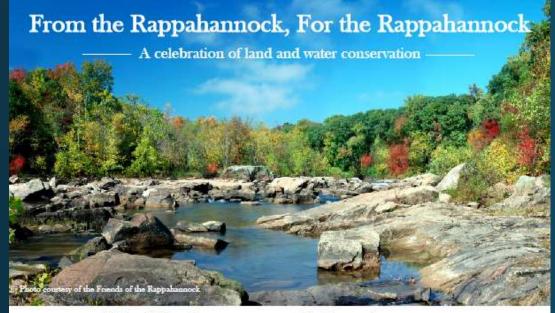
- ~55 Stafford HS Students
- JMSWCD, FOR, and PEC
- Site prep help from Fauquier HS Kids
- Marsh Run



## Marshfield Farm Planting

- Planted nearly 3 acres
- 500 Hardwoods
- 600 live-stakes





We all live down stream and rely on clean water.

Join us for a casual, family friendly field day celebrating our community's land and water conservation successes by enjoying the bounty of the Rappahannock River.

Saturday, April 11, 1pm—4:30pm Marriott Ranch 5305 Marriott Lane Hume, VA 22639 Tickets are \$25 and includes—

Local oysters from the Oyster Company of Virginia, picnic fare, local wine and beer, live folk music, fly casting and tying demonstrations, and hay rides to showcase agricultural conservation practices. Children under 14 years of age are welcome free of charge.

#### Register in advance at pecva.org/celebratewater







Want to get your hands dirty for cleaner water? Join us for a tree planting at Marriott Ranch before the event begins. For more information, contact Tom Turner, SWCD, at (540) 347-3120 ext. 109 or tom.turner@fauquiercounty.gov

# Celebrating the Bounty of the Rappahannock

Bringing ideas to reality through partnership





# Spring 2015 - Marriott Ranch Planting

- Planted over 5 acres of hardwoods
- 1,500 live-stakes
- Using over 50 volunteers
- Main stem of Fiery Run



Connecting the bounty of the Tidal Rappahannock River with headwater stream protection practices



- Fresh oysters
- Local beer and wine
- Blue grass music
- Hay rides
- Tour of BMPs
- DGIF Fish Survey of Fiery Run

## Spring 2015 - Jacobs Planting



#### Spring 2015 – Maintaining the Plantings







For support and partnership above and beyond the norm the John Marshall SWCD would like to recognize

Friends of the Rappahannock

2015 Conservation Partner Award



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John Marshall SWCD recognizes

#### Dan Stell

for the

#### 2015 Business Partner Award

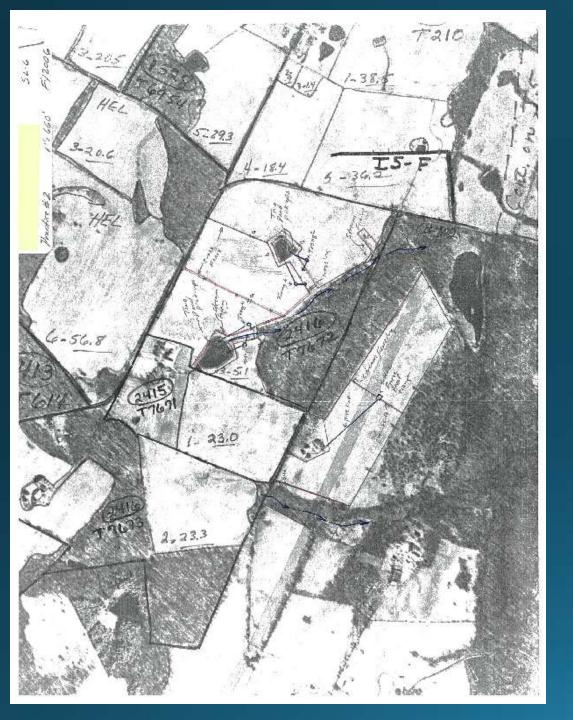


#### Dan The Man

- Began work with the County GIS Office in 1998 as a GIS Intern.
- A Geographic Information System or GIS is a system that captures, stores, analyzes, manages, and presents all types of spatial and geographic data.
- The Fauquier County GIS Office is responsible for the creation and maintenance of spatial data for the county departments and the public.
- In 2000 Dan was hired full time as a GIS Technician.
- Dan's specialty map creation and maintenance.
- Dan was the man for maps, and we always needed maps.

#### Dan The Man

- Maps for larger farms, watershed planning, public meetings
- Dan was always there to help.
- He understood our mission and worked hard to support it.
- Several years ago Dan was promoted to GIS Analyst
- Now he solves problems and addresses needs with spatial and geographical information.
- Perfect timing we needed some serious help.



# Planning maps prior to 2005 were basically photocopies

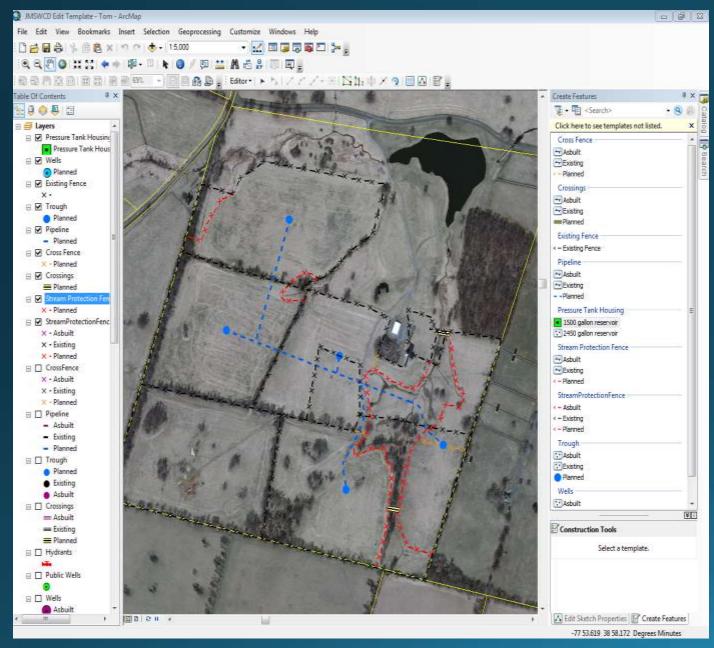
- Farm Service Agency Aerial Photos (1"=660')
- Ink sketches
- Unclear
- Difficult to interpret
- No Zoom Capabilities

# Conservation Plan Map Assisted By: Thomas Turner Legend Practices (polygons) Consplan SL8B 08 FauquierRoads

# In 2005 we began using NRCS's Toolkit

- Better than photocopies
- Cumbersome to work on
- Computer access was difficult
- No local long term Records

#### About 2008 we received a license of ArcMap from NRCS.

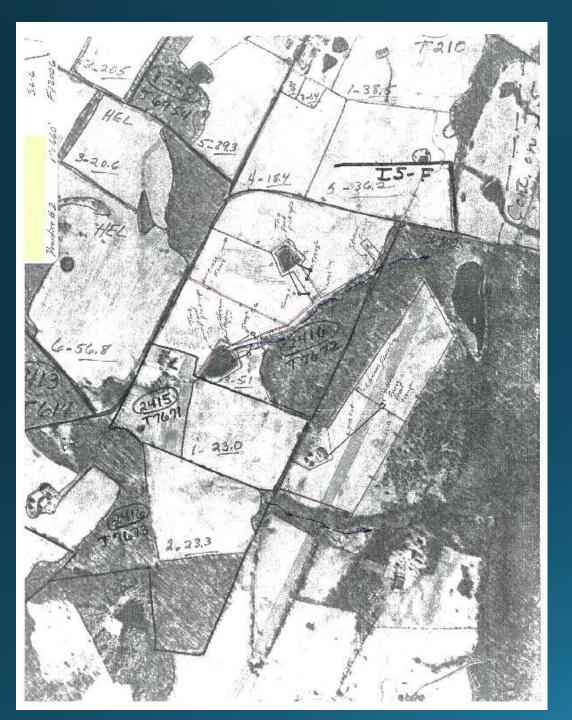


- Improved flexibility
- NRCS no Conservation Planning
- Dan supported us with hands on instruction
- Data layers unique to Fauquier
- Easier to use
- Better map quality

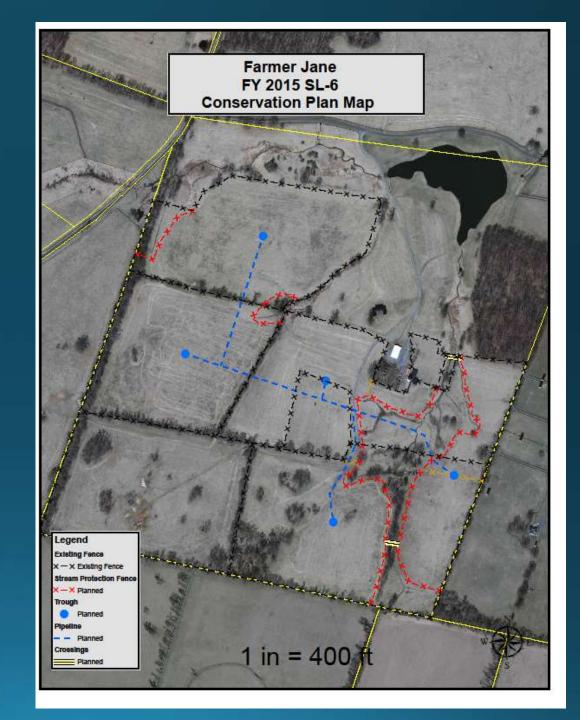


# 2012 - County supported ArcMap program

- Dan was instrumental in facilitating this process.
- He setup a more robust layer system with unique symbols for troughs, fence, etc.
- This allowed us access to a broader range of data (5 foot contours, 1937 aerials, etc.)
- These layers are extremely useful in our planning process
- We are now able to produce top of the line maps for our Fauquier County participants.
- Track and report work



Dan The Man



For service and partnership above and beyond the norm the John Marshall SWCD would like to recognize

Dan Stell

for the

2015 Business Partner Award



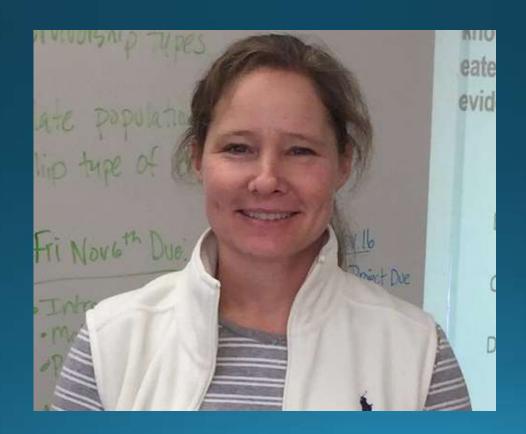
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John Marshall SWCD recognizes

#### Debbie Fisher

for the

#### 2015 Edwin F. Gulick Conservation Educator Award

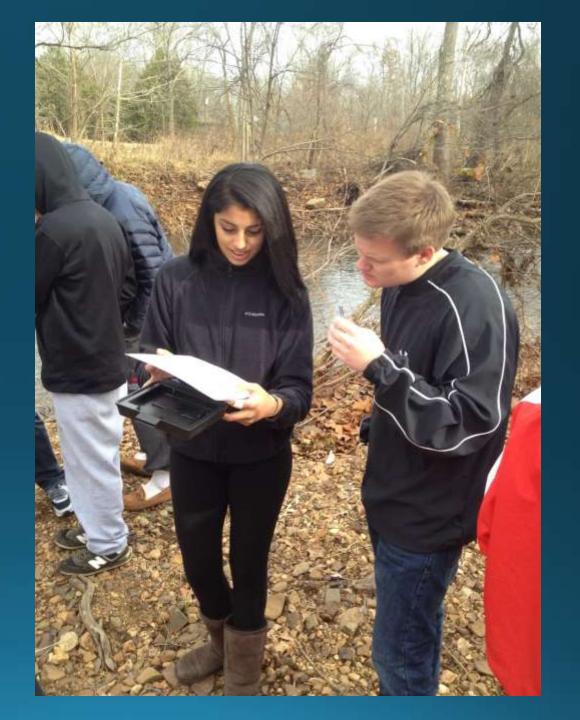




#### Students receive instruction from Debbie before beginning chemical & physical monitoring





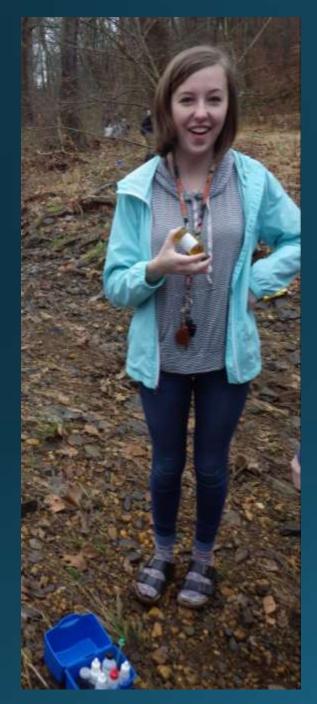


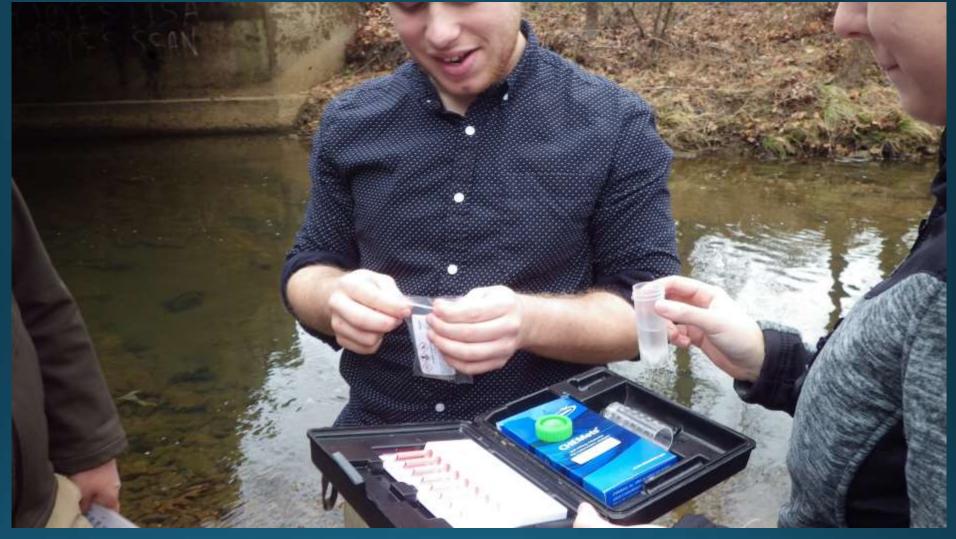


Students measure the dissolved oxygen in the water

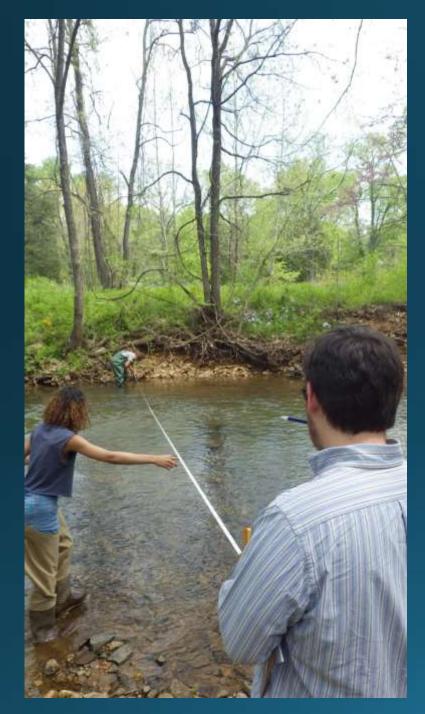


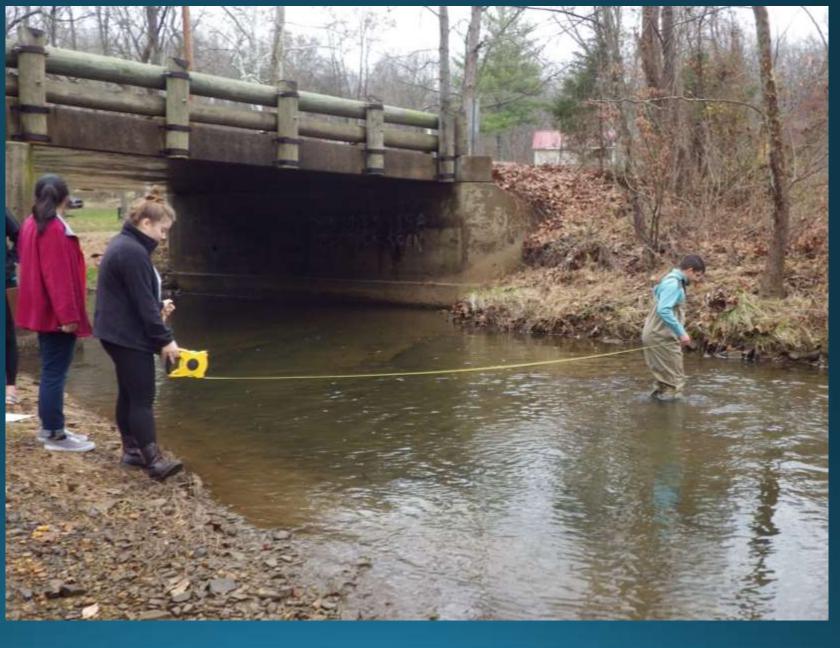
Debbie passes out a pH test kit to a student





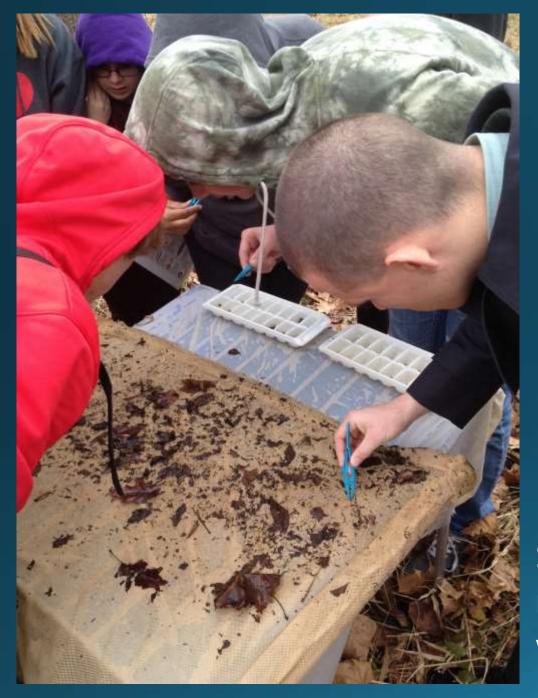
Students measure nitrates and phosphates





Students collecting width measurements of Cedar Run

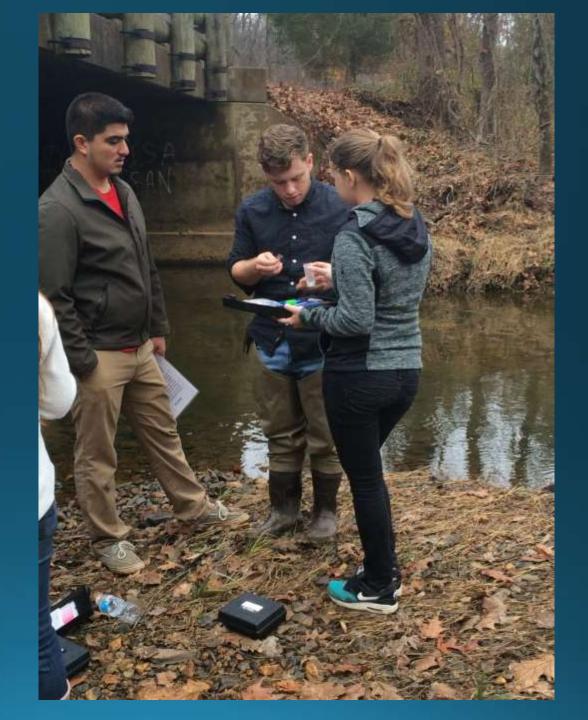






Students sort and identify benthic macroinvertebrates to help better understand water quality







Allows students to become interested...



...students keep it interesting

For her outstanding contribution to education in Fauquier County the John Marshall SWCD would like to recognize

Debbie Fisher

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